PTO/SB/01 (08-03)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## HON FOR UTILITY OR **DESIGN PATENT APPLICATION** (37 CFR 1.63)

Declaration Submitted With Initial Filing

OR

Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

pond to a collection of information	unless it contains a valid OMB control number.
Attorney Docket Number	VBSTC12b
First Named Inventor	Zia-ur Rahman
COM	PLETE IF KNOWN
Application Number	09/888,816
Filing Date	June 25, 2001
Art Unit	2621
Examiner Name	D. Rosario-Vasque

I hereby declare that:		·				
Each inventor's residence, ma	iling address, a	and citizenship are as state	d below next to	their name.		
I believe the inventor(s) name which a patent is sought on the			r(s) of the subje	ct matter which	h is daime	ed and for
METHOD OF IM	PROVING	A DIGITAL IMAG	GE HAVING	WHITE :	ZONES	
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Abo and alfanting of which		(Title of the Inventi	on)		111	N 2 1 2004
the specification of which					30	M & I COOT
is attached hereto					Techno	logy Center 260
OR					, , ,	3,
was filed on (MM/DD/Y	YYY) 06	/25/2001 as	Jnited States A	oplication Num	ber or PC	T International
Application Number 09/	888,816	and was amended on (M	M/DD/YYYY)			(if applicable).
I hereby state that I have revie amended by any amendment			above identified	specification, i	ncluding t	he claims, as
I acknowledge the duty to discontinuation-in-part application and the national or PCT intern	ns, material info	ormation which became a	vailable betwee			
I hereby claim foreign priority inventor's or plant breeder's ri country other than the United application for patent, inventor before that of the application of	benefits underghts certificate States of Amerers or plant bree	r 35 U.S.C. 119(a)-(d) or (s), or 365(a) of any PCT ica, listed below and have eder's rights certificate(s),	(f), or 365(b) of international apalso identified to	plication which below, by chec	n designat king the b	ed at least one ox, any foreign
Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Prio Not Cl		ertified Co	opy Attached?
Mulliperial	Sound	William				
Additional foreign applicat	tion numbers a	re listed on a supplementa	priority data sh	eet PTO/SB/02	2B attache	ed hereto.

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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# **DECLARATION** — Utility or Design Patent Application

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Country	- :	Telephone		Fax	<del> </del>	
I hereby declare that all staten	nents made her	ein of my own know	ledge are t	ue and that a	II statements mad	e on information
and belief are believed to be						
statements and the like so ma false statements may jeopardiz					3 U.S.C. 1001 and	that such willful
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NAME OF SOLE OR FIRST IN	IVENTOR:	Ap	etition has b		his unsigned inver	itor
Given Name (first and middle [if any])				Family Name or Surname		
(mst and middle [n arry])	Zia-ur		İ	Or Surname	Rahman	
Inventor's	-				Date	
Signature Signature					093	JUN 2504
Residence: City	State		Country		Citizenship	
Williamsburg	Virgin:	ia	u.s.	Α.	u.s.	
Mailing Address					1 0.0.	
4840 Bristol Ci	rcle					
City	State	5	ZIP		Country	
Williamsburg	Virgin:	ia	2	3185	U.S	<u> </u>
NAME OF SECOND INVENTO	R:		A	petition has b	een filed for this ur	signed inventor
Given Name				amily Name		
(first and middle [if any])	Glenn A.	•	'	or Surname	Woodell	
Inventor's Signature			•		Date	
Residence: City	State		Country		Citizenship	
Newport News	Virgini	a	U.S.	Α	v.s.	
Mailing Address				- <b></b>		
637 Village Gree	en Parkwa	ay				
City	State	*	ZIP		Country	
Newport News	Virgini	.a	2	3602	U.S.A.	
Additional inventors or a legal re	presentative are bei	ing named on the	supplemental si	neet(s) PTO/SB/0	2A or 02LR attached he	reto.

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ADDITIONAL INVENTOR(S)

Supplemental Sheet

Name of Additional Joint Inventor, if any:	☐ A pe	A petition has been filed for this unsigned inventor					
Given Name (first and middle (if any)			Family Name or Surname				
Daniel J.		Jo	bso	n	,		
Inventor's Signature			<del>-</del>		Date		
Residence: City Newport News	Sta	e VA	Cou	ntry U.S.A.	Citizenship	U.S.	
Malling Address 42 Elm Avenue							
Mailing Address							
City Newport News	St	<sub>ate</sub> VA		<sub>Zip</sub> 23601	Country	U.S.A.	
Name of Additional Joint Inventor, if any:	<u> </u>	☐ A pe	tition I	nas been filed for this	unsigned in		
Given Name (first and middle (if any)				Family Name or	Surname	ECEIVE	:D
						JUN 2 1 200	ŀ
Inventor's Signature	·	Date			Tech	nology Cente	2600
Residence: City	St	ate		Country	:: <del>-</del> :	Citizenship	
Mailing Address							
Mailing Address							
City	St	ate )		Zip	Country		
Name of Additional Joint Inventor, if any:		☐ A pe	tition h	nas been filed for this	unsigned in	/entor	
Given Name (first and middle (if any)				Family Name or	Surname		
				<u> </u>			
Inventor's Signature		Date					
Residence: City	St	ate		Country		Citizenship	
Mailing Address							
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City	St	ate		Zip	Country		

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Patent Application

VBSTC12b (NASA Case No.)

## Declaration, Power of Attorney and Petition - Original Application

As a below named inventor, I hereby declare that: My residence, mailing address and citizenship, are stated below next to my name, I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled Method Of Improving A Digital Image Having White Zones JUN 2 1 2004 is attached hereto, was filed on the specification of which (Date) 06/25/2001 **Technology Center 2600** as Application Serial No. 09/888,816 and was amended (Date) I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose to the Patent and Trademark Office all information which is known to me to be material to patentability as defined in 37 CFR §1.56. I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application: patented. pending, abandoned. , the status of which is (Filing Date) (Serial No.) I hereby claim priority benefits under Title 35, United States Code §119(e) of any United States Provisional Applications listed below: , the status of which is pending. (Provisional Serial No.) (Filing Date) POWER OF ATTORNEY: I hereby appoint the following attorney(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: Registered practitioner(s) at Customer Number 23351 Registered practitioner(s) listed below: (Reg. No.) (Name) (Reg. No.) (Name) (Name) (Name) (Reg. No.) (Reg. No.) (Name) (Name) (Reg. No.) (Reg. No.) ADDRESS ALL CORRESPONDENCE TO: DIRECT TELEPHONE CALLS TO: Customer Number Telephone (Complete number to be dialed from USPTO): (757) 220-2649 Phone Correspondence Address listed below: (757) 220-2751 Fax Peter J. Van Bergen Name: 402 West Duke of Gloucester Street Address: Williamsburg, VA 23185

VBSTC12b	
(NASA Case No.)	

National Aeronautio	es and Space Administration has X	t of the United States of America, as repr an assignment in, or license to the this application and to receive the patent	ne invention set forth
in this application ar	id has the irrevocable right to prosecute		• •
		this invention or discovery described and to the foregoing specification, claims, po	
are believed to be t	rue; and further that these statements v	n knowledge are true and that all stateme were made with the knowledge that willful	false statements and the like so
	ie by fine or imprisonment, or both, und oplication or any patent issuing thereon.	er 18 U.S.C. §1001; and that such willful	raise statements may jeopardize
<del> </del>	LACT	FIDOT	MIDDLE OR INITIAL
FULL NAME	LAST	FIRST	MIDDLE OR INITIAL
OF INVENTOR	Rahman	Zia-ur	COUNTRY OF CITIZENSUID
RESIDENCE AND	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
CITIZENSHIP	Williamsburg	VA	USA
MAILING	STREET NO. AND NAME	CITY AND STATE (OR COUNTRY)	ZIP CODE
ADDRESS	4840 Bristol Circle	Williamsburg, VA	23185
SIGNATURE			DATE
FULL NAME	LAST	FIRST	MIDDLE OR INITIAL
OF INVENTOR	Jobson	Daniel	J.
RESIDENCE AND	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
CITIZENSHIP	Newport News	VA	USA
MAILING	STREET NO. AND NAME	CITY AND STATE (OR COUNTRY)	ZIP CODE
ADDRESS	42 Elm Avenue	Newport News, VA	23601
SIGNATURE	el On Oslean		6/4/04
_ Nom			17
FULL NAME	LAST U	FIRST	MIDDLE OR INITIAL
OF INVENTOR	Woodell	Glenn	A.
RESIDENCE AND	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
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MAILING	STREET NO. AND NAME	CITY AND STATE (OR COUNTRY)	ZIP CODE
ADDRESS	637 Village Green Parkway	Newport News, VA	23602
SIGNATURE	& Doghell		DATE 6-4-04
FULL NAME OF INVENTOR	LAST	FIRST	MIDDLE OR INITIAL
RESIDENCE AND CITIZENSHIP	CITY	STATE OR FOREIGN COUNTRY	COUNTRY OF CITIZENSHIP
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SIGNATURE	<u></u>		DATE

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NASA LANGLEY RESEARCH CENTER KURT G. HAMMERLE MAIL STOP 212 3 LANGLEY BOULEVARD HAMPTON, VA 23681-0001





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RECORDATION DATE: 06/25/2001

REEL/FRAME: 011951/0044

NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

WOODELL, GLENN A.

DOC DATE: 06/15/2001

ASSIGNOR:

JOBSON, DANIEL J.

DOC DATE: 06/15/2001

RECEIVED

ASSIGNEE:

NATIONAL AERONAUTICS AND SPACE / ADMINISTRATION, THE WASHINGTON, D.C. 20546

JUN 2 1 2004

**Technology Center 2600** 

SERIAL NUMBER: 09888701

PATENT NUMBER:

FILING DATE: 06/25/2001

ISSUE DATE:

DIANE RUSSELE, PARALEGAL ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS





## Attorney Docket

	or neg	TOTAL TOTAL PATENT
		IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
<u> </u>	In re appli Serial No. Filed: For:	
	Patent:	issued:
*NOTE:	Insert nan also	ne(s) of inventor(s) and title also for patent. Where recordal is with respect to a maintenance fee payment
Commiss	pplication ioner of P ton, D.C. 2	atents and Trademarks 20231
/		CERTIFICATION UNDER 37 CFR 1.10
to Addre		nat this "Assignment Cover Letter", along with any document referred to, is being deposited with the all Service on this date 15,200 in an envelope as "Express Mail Post Office illing Label Number 1804089 28305 addressed to the: Commissioner of Patents and Trademarks, 20231.
		CERTIFICATION UNDER 37 CFR 1.8
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6/2. Date	5/200	Illa Syr
		ASSIGNMENT (COVER LETTER)
		NAMES OF PARTY(IES) MAKING TRANSFER
1.		
ı	Name 1: Name 2: Name 3:	GLENN A. WOODELL 16/25/01

IDENTITY OF PARTY(IES) TO WHOM TRANSFER IS MADE

2. Transfer is being made to:

Name:

The NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

WASHINGTON, DC 20546 Address:

INTENTION OF DOCUMENT(S)

3. A brief description of what the accompanying document intends to accomplish is that it is an:

Assignment/License

Assignment

License

Security interest

Other

19/888701

Date Assignment Executed: JUNE 15, 2001

Execution Date of new Application: **JUNE 15, 2001** 

### ADDRESS TO WHICH DOCUMENT SHOULD BE RETURNED AFTER RECORDAL

Please return the recorded document(s)

- 5. NASA Langley Research Center
  Mail Stop 212
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  Hampton, VA 23681-0001
- 6. Total number of applications/patents involved: 1
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TOTAL FEE DUE: \$40.00

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Transmittal of Filing Under 37 CFR 1.60(b) (Item 11)

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- 9. Statement and signature:

Total Number of pages including cover sheet, attachments and documents 3

As CO-Attorney of & Record, I hereby declare that the information contained herein is true and correct for the <a href="#">✓</a> accompanying Assignment or <a href="#">\_ copy of the Assignment</a>, and the copy of the Assignment (if applicable), being transmitted is a true copy of the original document.

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National Aeronautics and Space Administration

Form 430DF Electronically reproduced March 1998

## ASSIGNMENT AND AGREEMENT

Title of Invention: METHOD OF DYNAMIC RANGE	FIMPROVING A DIGITAL IMAC	GE AS A FUNCTION OF ITS
Inventor(s):ZIA-UR RAHMAN, (	GLENN A. WOODELL and DANI	EL J. JOBSON
NASA Case No.: <u>16012-1-CU</u>	Application No.*:	Filing Date*:
<del>-</del>	-	ndersigned inventor(s) and the United State trator of the National Aeronautics and Space
WHEREAS, the making of this As	ssignment and Agreement is in acc	ordance with 37 CFR Part 501; and
WHEREAS, the undersigned inve United States Patent on the above-		date(s) indicated below, an application for a
<ol> <li>Assign to the Gover United States of America, its territ</li> </ol>	tories and possessions, and my (our	ment, the undersigned hereby: re right in and to said invention within the r) entire right, title and interest in and to said ication(s), and any patent(s) that may issue
invention, in accordance with 37 of Paris (1883), as amended. If the may request rights in that country reservation to the Government of a	CFR 501.9(d), including rights of e Government chooses not to file a y, in accordance with 37 CFR 501 a nonexclusive, irrevocable, royalt I purposes. The terms of such reser	nd exclusive foreign rights in and to said priority under the International Convention an application in any foreign country, I (we .9(d), and such rights will be subject to the y-free license in the invention with power to vation will appear, where practicable, in any
requested information to, and (c		ecute any document for, (b) to deliver any ith the Government in order to allow the d Agreement.
*4. Authorize and requestiling date above when required.	st the attorneys of record in the app	lication to insert the application number and
De a. Woodel	6-15-01	6-15-01
Signature of Inventor)	(Date)	(Date Application Executed)
GLENN A. WOODELL		Newport News, VA 23601 USA
Inventor's Typed Name)	(Post Office Address - Including	Country)
Daniel Q. Jobran	6/19/01	6/15/0/
Signature of Inventof)	(Date)!	(Date Application Executed)
DANIEL J. JOBSON  Inventor's Typed Name)	42 Elm Avenue, Newport Ne  (Post Office Address - Including	
	(1 031 Office Address - Including	ovanii 37
Signature of Inventor)	(Date)	(Date Application Executed)
Inventor's Typed Name)	Post Office Address - Including	Country

## Attorney Docket VBSTC12a

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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/	In re applica	<sub>tion of:</sub> Zia-ur	Rahman et	al.			
_	Serial No.:			Group N	ın		
	Filed:			Examine			
	For: M	ETHOD OF IMPRO	VING A DIGITAL	IMAGE AS	A FUNCTION (	OF ITS DYNAMIC F	RANGE
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	also				·		_,
	Application						
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			CERTIFICATION UN	NDER 37 CFR 1	.8		
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			ASSIGNMENT (C	OVER LETTER)			
		NAMI	S OF PARTY(IES)	MAKING TRAI	NSFER		
1.							
	Name 1:	GLENN A. WO	ODELL				
	Name 2:	DANIEL J. JOB	SON				
	Name 3:						
		IDENTITY OF	PARTY(IES) TO V	VHOM TRANSF	ER IS MADE		
2.	Transfer is be						
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Date Ass	ianment Even	ted: IIINE 15, 2001					

Execution Date of new Application: JUNE 15, 2001

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Tel. No.(757) 864-2470

NASA Langley Research Center Mail Stop 212 Hampton, VA 23681-2199

KURT G. HAMMERLE Reg. No. 36,819

Hannelle





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\*101767166A\*

PETER J. VAN BERGEN 402 W. DUKE OF GLOUCESTER ST. WILLIAMSBURG, VA 23185

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RECORDATION DATE: 06/25/2001

REEL/FRAME: 011946/0951

NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

RAHMAN, ZIA-UR

DOC DATE: 06/25/200 RECEIVED

ASSIGNEE:

SCIENCE AND TECHNOLOGY CORP. 10 BASIL SAWYER DRIVE HAMPTON, VIRGINIA 23666 JUN 2 1 2004

**Technology Center 2600** 

SERIAL NUMBER: 09888816

PATENT NUMBER:

FILING DATE: 06/25/2001

ISSUE DATE:

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Zia-ur Rahman	Name: Science and Technology Corp.  Internal Address:
Additional name(s) of conveying party(ies) attached? Yes No	
3. Nature of conveyance:	
Assignment	Street Address: 10 Basil Sawyer Drive
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Execution Date: 6/15/2001	Additional name(s) & address(es) attached?  Yes  No
4. Application number(s) or patent number(s):  If this document is being filed together with a new application,  A. Patent Application No.(s)  28/2001 HLE333 00000025 09888816	88884
FC:581 40.00 DP	JUN 2 1 2004
	Technology Center 2600
	ached? Yes No
Name and address of party to whom correspondence concerning document should be mailed:  Name: Peter J. Van Bergen	6. Total number of applications and patents involved:
Internal Address:	7. Total fee (37 CFR 3.41):\$_40
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### ASSIGNMENT OF INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration,

### ASSIGNOR(S):

Zia-ur Rahman 4840 Bristol Circle Williamsburg, Virginia 23185 U.S.A.

hereby sell(s), assign(s) and transfer(s) to

#### ASSIGNEE:

Science and Technology Corporation 10 Basil Sawyer Drive Hampton, Virginia 23666-1340 U.S.A.

and the successors, assigns and legal representatives of the ASSIGNEE, \_\_\_\_ his/her entire right, title and interest or \_\_\_ his/her undivided \_\_\_ percent (\_\_\_%) interest for the United States and its territorial possessions and in all foreign countries, including all rights to claim priority, in and to any and all improvements which are disclosed in the invention entitled:

# METHOD OF IMPROVING A DIGITAL IMAGE HAVING WHITE ZONES

and	which is found in
	U.S. patent application executed on even date herewith;
	0.5. Patent application executed on .
	U.S. Provisional application naming the above inventor(s)
for	the above-entitled invention;
	Express Mail Label:
	Mailed
	;
	assignment, 1, the ASSIGNOR signing below hereby
	authorize and request my/our attorney to insert below the
	filing date and application number when they become
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	U.S. application number 0 , Filed
	International application No. PCT//
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(also check the following if foreign application(s) is also being assigned)

and any legal equivalent thereof in a foreign country, including the right to claim priority;

and, in and to all Letters Patent or similar legal protection to be obtained for said invention by the above application and any continuation, division, renewal, or substitute thereof, and as to Letters Patent any reissue or re-examination therefor in the United States and in any and all foreign countries.

This assignment is applicable to INVENTOR(S), Zia-ur Rahman.

ASSIGNOR(S) hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNOR(S) further covenant(s) that ASSIGNEE will, upon its request be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR(S) and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, I/we have hereunto set my/our hand and seal.

Date: 06/15/2001

Zia-ur Rahman